



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/183,335	10/30/1998	ROBERT A. FOSTER	M-7085US	3004
32605	7590	12/22/2005	EXAMINER	
MACPHERSON KWOK CHEN & HEID LLP 1762 TECHNOLOGY DRIVE, SUITE 226 SAN JOSE, CA 95110			BORLINGHAUS, JASON M	
			ART UNIT	PAPER NUMBER
			3628	

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/183,335	FOSTER, ROBERT A.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jason M. Borlinghaus	3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 04 January 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-29 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____ .  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ .   | 6) <input type="checkbox"/> Other: _____ .                                  |

## DETAILED ACTION

### ***Terminal Disclaimer***

The terminal disclaimer filed on 12/15/03 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Patent No. 6,052,672 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### ***Claim Objections***

**Claim 16** is objected to because of the following informalities: Claim language should not contain abbreviations. CAA should be spelled out. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**Claim 16** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

**Claim 16** claims a method "wherein said pricing method is Cross CAA Bundled Tiering". Examiner has been unable to locate within the specification nor publicly

available non-patent literature a definition of "Cross CAA Bundled Tiering" sufficient to allow the examiner to consider Claim 16 on its merits.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1 – 2, 4 – 15 and 19 - 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Disclosed Prior Art (applicant's specification, pp. 1, line 15 – 2, line 21) and Parsaye (Parsaye, Kamran & Chignell, Mark. *Expert Systems For Experts*. John Wiley & Sons. 1988. pp. 35 – 60, 177 – 178, 191 – 210 and 295 - 309).

**Regarding Claims 1 - 2,** Disclosed Prior Art discloses, a method for pricing financial transactions (products), said method comprising:

- creating a plurality of price tables (fee arrangements – see p. 2, lines 1 – 7);

Art Unit: 3628

- a plurality of product rules (product designation. "Fee arrangements can take many shapes, e.g., by product..." – see p. 2, lines 1 – 7) each applicable to one or more of said financial transactions (products), wherein each of said product rules (product designation) is linked to one of said price tables (fee arrangements). (see p. 2, lines 1 – 21); and
- for each one of said financial transactions (products). (see p. 2, lines 1 – 21):
  - identifying an applicable one of said product rules (product designations) for said transaction (product). (see p. 2, lines 1 – 21); and
  - pricing said transaction (calculating fee for said product) according to the price table (fee arrangement) linked to said identified applicable product rule (product designation). (see p. 2, lines 1 – 21); and
  - wherein said price table (fee arrangement) comprises a billing (calculation of fees) method. (see p. 2, lines 1 – 21).

Disclosed Prior Art does not teach in a data processing system, a method for pricing financial transactions, said method comprising:

- creating, in a database system of the data processing system, a plurality of price tables; and
- creating, in the database system, a plurality of product rules each applicable to one or more of said financial transactions, wherein each of said product rules is linked to one of said price tables.

Disclosed Prior Art does not teach that the utilization of price tables (fee arrangements) is automated. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have automated the method, since it has been held that broadly providing a mechanical or automatic means to replace manual activity that accomplishes the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

Storage of information in a database and the use of a rule-based system/method for retrieval and filtering of said information is old and well-known in the art of computer system designs and expert system design, as evidenced by Parsaye (see pp. 35 – 60 and 195 – 211). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Disclosed Prior Art by incorporating a database storage capacity and a rule-based system/method for retrieval, as disclosed by Parsaye, to allow for the use of an expert system to automate the retrieval and application of data, such as pricing, efficiently and quickly.

**Regarding Claim 4**, Disclosed Prior Art does not teach a method wherein:

- each of said product rules is linked to one of said price tables by a price table name.

Parsaye discloses a method wherein:

- each of said product rules (rules) is linked (related) to one of said price tables (frames) by a price table name (frame-name). (see pp. 191 – 200, especially 5.8.1. Rules That Act on Frames, p. 196).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to have modified Disclosed Prior Art and Parsaye by incorporating a linkage between the product rule (product designation) and price tables (frames) by the name of the price table (frame), as disclosed by Parsaye, to incorporate and utilize standard conventions and procedures commonly utilized for rule-based expert systems, such as allowing the rule access to the stored information.

**Regarding Claim 5 - 15,** Disclosed Prior Art discloses a method:

- wherein an entry in each of said price tables (fee arrangements) comprises a pricing method (fee). (see p. 2, lines 1 – 21).

Neither Disclosed Prior Art nor Parsaye disclose a method:

- wherein said pricing method is flat fee;
- wherein said pricing method is unit price;
- wherein said pricing method is unit cost;
- wherein said pricing method is volume discount;
- wherein said pricing method is tiering;
- wherein said pricing method is cost plus;
- wherein said pricing method is minimum revenue;
- wherein said pricing method is markup of total price; and
- wherein said pricing method is bundled pricing;

The above cited pricing methods are old and well-known in the art of marketing and product pricing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Disclosed Prior Art and Parsaye by

incorporating various old and well-known pricing methods into the price tables (fee arrangements) allowing for pricing of financial transactions (products) based upon any old and well-known pricing strategies that the inventor desired.

**Regarding Claim 19,** Disclosed Prior Art does not teach a method wherein:

- said product rules comprise a default rule.

Default rules in a rule-based expert system is old and well-known in the art of computer system design and expert system design, as evidenced by Parsaye (see pp. 177 – 178). It would have been obvious to have modified Disclosed Prior Art and Parsaye by incorporating a default rule, as disclosed by Parsaye, allowing for the assumption that some “events have regular or default behavior.” (see p. 177).

**Regarding Claim 20 – 22,** Disclosed Prior Art discloses a method wherein:

- said price table (fee arrangement) contains prices (fees). (fee arrangements – see p. 2, lines 1 – 7).

Neither Disclosed Prior Art nor Parsaye teach a method wherein:

- said price table (fee arrangement) contains costs; and
- said price table (fee arrangement) contains negative values (costs/losses).

Consideration of costs and negative values (costs/losses) in pricing is old and well-known in the art of marketing and pricing. It would have been obvious to have modified Disclosed Prior Art and Parsaye by incorporating costs and negative values into the pricing tables (fee arrangements) allowing for inclusion of old and well-known considerations utilized in pricing.

**Claims 3, 17 – 18 and 23 - 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Disclosed Prior Art and Parsaye, as in Claim 1 above, and in further view of Hendlar (Hendlar, James A. *Expert Systems: The User Interface*. Albex Publishing Corporation. Norwood, NJ. 1988. pp. 31, 46 – 47, 113 and 133).

**Regarding Claim 3**, Disclosed Prior Art discloses a method, wherein each of said product rules (product designation) comprises:

- a name of said product rule (product designation. “Fee arrangements can take many shapes, e.g., by product...” – see p. 2, lines 1 – 7 – Inherently there must some name for the product if the fee arrangement is organized by product); and
- pricing and billing information (fee arrangements – see p. 2, lines 1 – 7).

Disclosed Prior Art does not teach a method wherein each of said product rules comprises:

- a name of said product rule;
- a status of said product rule;
- pricing and billing information, including a link to one of said price tables;  
and
- display only information.

Parsaye discloses a method wherein each said produce rule (rule) comprises:

- including a link (relation) to one of said data in information storage (frames). (“Rules, which relate facts and frames.” – see p. 57).

Handler discloses a method wherein each of said product rules (rules) comprises:

- a name of said product rule (rule). (“...shows the importance of naming rules carefully in the first place...” – see p. 113);
- a status of said product rule (rule). (“The “::” marks the beginning of rule attributes. There are predefined system attributes, such as status and author.” – see p. 133); and
- display only information. (Rule accesses knowledge base and retrieved information is “selectively displayed as desired by the knowledge base author or eventual users by using the DISPLAY command (e.g. DISPLAY DEFINITION (OBESITY) or DISPLAY CERTIFICATION).” – see pp. 46 – 47).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to have modified Disclosed Prior Art and Parsaye by incorporating a linkage between the product rule and stored data, as disclosed by Parsaye, and naming the product rule, providing a status of the product rule and assigning display only information, as disclosed by Handler, to incorporate and utilize standard conventions and procedures commonly utilized for rule-based expert systems.

**Regarding Claim 17,** neither Disclosed Prior Art nor Parsaye teach a method wherein said product rule further comprises:

- a plurality of mandatory attributes, said mandatory attributes include an identifier for said product rule.

Handler discloses a method wherein said product rule further comprises:

- a plurality of optional/mandatory attributes (rule attributes), said mandatory attributes (rule attributes) include an identifier (name) for said product rule. (supra – see pp. 113 and 133).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to have modified Disclosed Prior Art, Parsaye and Handler by incorporating attributes, both optional and mandatory, with one attribute including an identifier (name) to the product rule, as disclosed by Handler, to incorporate and utilize standard conventions and procedures commonly utilized for rule-based expert systems, such as providing the rule an identifier by which access to the rule can be obtained.

**Regarding Claim 18,** Disclosed Prior Art does not teach a method further comprising:

- in creating one of said product rules, applying a validating rule to validate said product rules prior to committing said product rules to said database system.

Validation and verification of rules within a rule-based expert system prior to implementation is old and well-known in the art of computer system design and expert system design, as evidenced by Parsaye (see pp. 295 - 309) and Handler (see p. 31). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Disclosed Prior Art, Parsaye and Handler by incorporating a validating rule, as disclosed by Parsaye and Handler, to access the validity and accuracy of the rules prior to implementation of the system.

**Regarding Claim 23**, further system claim would have been obvious from method claims rejected above, Claims 1, 4 and 17, in combination, and is therefore rejected using the same art and rationale.

**Regarding Claim 24**, further system claim would have been obvious from method claim rejected above, Claim 2, and is therefore rejected using the same art and rationale.

**Regarding Claim 25**, further system claim would have been obvious from method claim rejected above, Claim 3, and is therefore rejected using the same art and rationale.

**Regarding Claim 26**, further system claim would have been obvious from method claim rejected above, Claim 17, and is therefore rejected using the same art and rationale.

**Regarding Claim 27**, further system claim would have been obvious from method claims rejected above, Claims 3 and 17, in combination, and is therefore rejected using the same art and rationale.

**Regarding Claim 28**, further system claim would have been obvious from method claims rejected above, Claim 18, and is therefore rejected using the same art and rationale.

**Regarding Claim 29**, further system claim would have been obvious from method claims rejected above, Claim 19, and is therefore rejected using the same art and rationale.

***Response to Arguments***

Applicant's arguments with respect to pending claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Borlinghaus whose telephone number is (571) 272-6924. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on (571) 272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

\*\*\*



HYUNG SOOUGH  
SUPPLYING PATENT EXAMINER  
TECHNOLOGY CENTER